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| 09/965,679 | 09/27/2001 | Trent M. Molter | PES-0040 | 2897 |
| 23462 | 7590 | 01/05/2006 | EXAMINER | |
| CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 | | | WILLS, MONIQUE M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1746 | |
| DATE MAILED: 01/05/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,679

Applicant(s)

MOLTER ET AL.

Examiner

Monique M. Wills

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14, 16-23, 25-29 and 55-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14, 16-20, 22, 23, 25, 27-29 and 55-63 is/are rejected.
- 7) ☒ Claim(s) 21 & 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the Amendment filed October 31, 2005. Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Willmann et al. U.S. Patent 5,250,372 in view of Kuriyama et al. U.S. Pub. 2004/0091754. The following rejections have been overcome:

- Claims 11-13, 20 & 22 under 35 U.S.C. 102(b) as being anticipated by Willmann et al. U.S. Patent 5,250,372.
- Claim 14 under 35 U.S.C. 103(a) as being unpatentable over Willmann et al. U.S. Patent 5,250,372 in view of Kuriyama et al. U.S. Pub. 2004/0091754
- Claims 23 & 28 under 35 U.S.C. 102(e) as being anticipated by Buchner et al. U.S. Patent 6,299,999.
- Claims 30 & 32 under 35 U.S.C. 102(e) as being anticipated by Leonida et al. U.S. Patent 5,324,565.
- Claims 30 & 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward U.S. Patent 5,624,277.
- Claims 30 & 33 under 35 U.S.C. 102(b) as being anticipated by S.H. McKnight U.S. Patent 1,769,066.

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- Claims 44, 46-50 & 52 under 35 U.S.C. 102(e) as being anticipated by Hodko et al. U.S. Patent 6,322,684.
- Claim 45 under 35 U.S.C. 103(a) as being unpatentable over Hodko et al. U.S. Patent 6,322,684.
- Claim 51 under 35 U.S.C. 103(a) as being unpatentable over Hodko et al. U.S. Patent 6,322,684.

However, the claims are newly rejected as follows:

- Claims 11-13, 16-18, 23,25,27, 55-57, 60 & 63 under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. U.S. Patent 4,485,138.
- Claims 11-13, 16 & 20 & 22 under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu U.S. Patent 6,231,053.
- Claims 19, 29 & 61 under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claims 11,23 & 55, in view of Leonida et al. U.S. Patent 5,324,565.
- Claims 20, 28, 58 & 59 under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claims 11,23 & 55, in view of Furuse et al. JP 402245579.
- Claim 14 under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claim 11 above, in view of Kuriyama et al. U.S. Pub. 2004/0091754.

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- Claims 62 under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claim 55 above.

Interference

An interference of claims 55-63 has been requested. However, an interference cannot be initiated since a prerequisite for interference under 37 CFR 1.606 is that the claim be patentable to the applicant subject to a judgment in the interference. In the instant case, claims 55-63 are not patentable.

Allowable Subject Matter

Claims 21 & 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The instant claims are allowable of the prior art of record, because the prior art is silent to a dimpled pressure pad comprising an elastomeric member threaded through the dimples.

Claim Objections

Claims 16-19 & 21 are objected to because of the following informalities:
the claims depend on cancelled claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

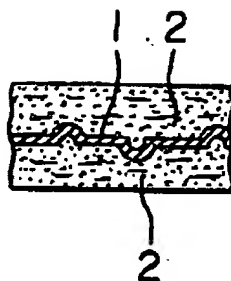
The following is a quotation of the appropriate paragraphs of 35
U.S.C. 102 that form the basis for the rejections under this section made in
this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13, 16-18, 23,25,27, 55-57, 60 & 63 are rejected under 35
U.S.C. 102(b) as being anticipated by Yamamoto et al. U.S. Patent 4,485,138.

In re claim 11, Yamamoto teaches an electrically conductive planar
member (1) with a plurality of electrically conductive dimples disposed on the
first surface. See Figure 3. The conductive planar member is coated with an
elastomeric member (2) disposed at the dimples.

FIG. 3

The limitation with respect to the dimples being configured to impart resilience to the pressure pad in response to pressure variations, is considered an inherent characteristic of the electrically conductive planar member, because it is made of the same material and comprises the same shape set forth by Applicant. In accordance with MPEP 2112.01, “[p]roducts of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). In the instant case, resiliency is necessarily present, because the chemical and physical structures are identical.

With respect to claim 12, the dimples are semi-spherical in geometry. See Figure 3.

As to claim 13, the dimples inherently comprise a stress point, because all dimpled materials will collapse under sufficient pressure.

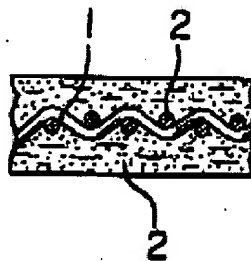
As to claim 16, the elastomeric member (20) is disposed at the first surface of the planar member (1) adjacent the dimples. See Figure 3.

With respect to claim 17, the elastomeric member (2) is disposed at a second surface of the planar member, the second surface of the planar member being defined by an obverse surface of the planar member. See Figure 3.

As to claim 18, the elastomeric member (2) is disposed within cavities defined by the dimples. See Figure. 3.

With respect to claim 23, the electrically conductive member (2) is corrugated; and elastomeric member (1) is disposed at the corrugated member. See Figure 4.

FIG. 4

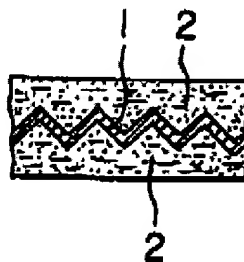


With respect to claim 25, the elastomeric member (2) is positioned to extend longitudinally between two raised portions formed by a resilient portion in the corrugated member. See Figure 4.

As to claim 27, the elastomeric material is electrically conductive because it includes a mixture of rubber and conductive aluminum, copper or copper alloys (col. 3, lines 1-10).

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In re claim 55, the material is a single sheet of electrically-conductive material with a top and bottom surface being bent up and down to include a plurality of alternating ribs and channels. See Figure 2. The elastomeric material (2) is mounted within the channels. The limitation with respect to the elastomeric material being compressed to lie flush with the ribs and exert substantially uniform pressure across each of the top and bottom surface, is considered an inherent property of the gasket taught by Yamamoto, because the reference teaches the exact same structure made of the same materials set for by Applicant.

FIG. 2

With respect tot claim 56, the ribs and channels are linear and parallel to one another. Specifically, the ribs on one surface, and the channels are on the opposite surface.

With respect to claim 57, the electrically-conductive material is steel (col. 4, lines 35-40).

As to claim 60, the elastomeric material is rubber (col. 3, lines 3-40).

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With respect to claim 63, the electrically conductive material is rectangular in shape. See Figure. 2.

Therefore, Yamamoto anticipates the instant claims.

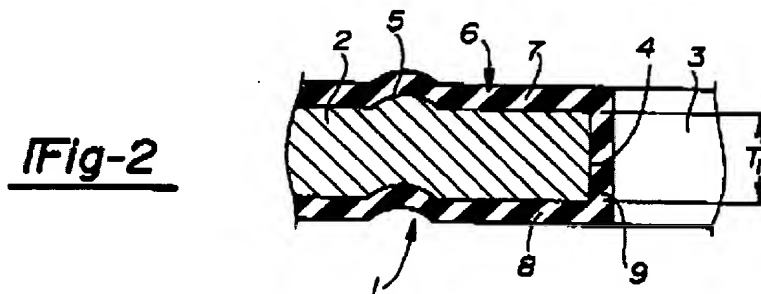
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13, 16 & 20 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu U.S. Patent 6,231,053.

In re claim 11, Wakamatsu teaches an electrically conductive planar member (2) with a plurality of electrically conductive dimples (5) disposed at a first surface of the planar member. See Figure 2. The conductive planar member is coated with an elastomeric member (2) disposed at the dimples.



With respect to claim 12, the dimples are semi-spherical in geometry.

See Figure 3.

As to claim 13, the dimples comprise a stress point, because all dimpled materials will collapse under sufficient pressure.

As to claim 16, the elastomeric member (20 is disposed at the first surface of the planar member (1) adjacent the dimples. See Figure 2.

With respect to claim 20, the electrically conductive material is composed of electrically conductive polymers such as polyethylene terephthalite or polybutylene terephthalite.

With respect tot 22, the electrically conductive material is disposed in an electrochemical cell. See the Abstract.

Wakamatsu does not expressly disclose a plurality of dimples disposed on the first surface of the planar member or dimples imparting residence (claim 11).

However, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ a plurality of dimples, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.* 193 USPW 8.

The limitation with respect to the dimples being configured to impart resilience to the pressure pad in response to pressure variations, is considered

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A characteristic of the electrically conductive planar member, because it is made of the same material and comprises the same shape set forth by Applicant. In accordance with MPEP 2112.01, "[p]roducts of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). In the instant case, resiliency is necessarily present, because the chemical and physical structures are identical.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 29 & 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claims 11,23 & 55, in view of Leonida et al. U.S. Patent 5,324,565.

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Yamamoto teaches a metal gasket coated with elastomeric rubber as described in the § 102 rejected recited hereinabove.

Yamamoto is silent to fluorosilicon (claims 19 & 29) or silicon (claim 61) coated gaskets.

Leonida teaches the equivalence of rubber, silicon and fluorosilicon (col. 3, lines 35-45) as elastomeric gasket coatings.

Yamamoto and Leonida are analogous art, because they are from the same field of endeavor, namely, fabrication of elastomeric coated gaskets.

Therefore, although Yamamoto teaches rubber instead of silicon or fluorsilicon coatings, Leonida shows that said silicon materials and rubber are equivalent materials known in the art. Therefore, because these materials were art recognized equivalents at the time the instant invention was made, one having ordinary skill in the art would have found it obvious to substitute on material for the other.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 28, 58 & 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claims 11,23 & 55, in view of Furuse et al. JP 402245579.

Yamamoto teaches a metal gasket coated with elastomeric rubber as described in the § 102 rejected recited hereinabove.

Yamamoto does not expressly disclose a gasket of copper (claim 20,28 & 58) or niobium (claim 59).

However, Furuse teaches that it is conventional to employ copper and niobium as gasket materials.

Yamamoto and Furuse are analogous art, because they are from the same field of endeavor, namely, fabricating gaskets.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the instant invention was to employ copper and/or niobium in the gasket of Yamamoto, since the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claim 11 above, in view of Kuriyama et al. U.S. Pub. 2004/0091754.

Yamamoto teaches a metal gasket coated with elastomeric rubber as described in the § 102 rejected recited hereinabove.

The reference is silent to a frusto-pyramidical dimpled geometry.

However, Kuriyama teaches that such frusto-pyramidical shapes are conventionally employed in electrically conductive members (see Abstract and Figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the frusto-pyramidical shape of Kuriyama in the resilient pressure pad of Yamamoto so that the gasket can withstand a higher pressure. The skilled artisan recognizes that various geometrical shapes directly effect the structural integrity of the member.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. U.S. Patent 4,485,138 as applied to claim 55 above.

Yamamoto teaches an electrically-conductive compression pad as described hereinabove.

The reference is silent to the electrically-conductive material being circular in shape.

However, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ an electrically-conductive material in a circular shape to conform to tubular electrolysis cell stacks. The skilled artisan recognizes that the pad should have the same shape as the electrode so that the pressure is exerted uniformly across the sheet. Therefore, it is necessary for the material to have the same shape as the electrode material.

Response to Arguments

Applicant's arguments with respect to the pending have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,296,907 teaches a coating for silicone gaskets.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Barr, may be reached at 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

1/1/06



MICHAEL BARR
SUPERVISORY PATENT EXAMINER